

Claims

1. In an agricultural harvester having a crop processing unit comprising a rotor and a housing, the rotor comprising:

a drum having a rearward cylindrical portion and a forwardly extending frusto-conical portion, the surface of the frusto-conical portion comprising an aft-region adjacent to the rearward cylindrical portion of the drum, and a fore-region;

an infeed section for receiving harvested crop material, the infeed section having at least one infeed element being located on the fore-region of the frusto-conical portion of the drum;

a crop processing section for processing harvested crop material received from the infeed section of the rotor, the crop processing section having at least one crop processing element being located on the aft-region of the frusto-conical portion of the drum.

2. The rotor described in Claim 1 wherein the crop processing element of the crop processing section sweeps a cylindrical path upon rotation of the rotor.

3. The rotor described in Claim 2 wherein the crop processing section is a crop processing section and the crop processing element is a threshing element.

4. The rotor described in Claim 3 wherein the infeed element is a helical infeed flight.

5. The rotor described in Claim 1 having at least one crop processing element being located on the rearward cylindrical portion of the drum.

6. The rotor described in Claim 5 wherein the crop processing element of the crop processing section sweeps a cylindrical path upon rotation of the rotor.

7. The rotor described in Claim 6 wherein the crop processing section is a threshing section and the crop processing element is a threshing element.

8. The rotor described in Claim 7 wherein the infeed element is a helical infeed flight.

9. In an agricultural harvester having a crop processing unit comprising a rotor and a housing, the rotor comprising:

a drum having a rearward cylindrical portion and a forwardly extending frusto-conical portion, the surface of the frusto-conical portion comprising an aft-region

adjacent to the rearward cylindrical portion of the drum, and a fore-region;

an infeed section for receiving harvested crop material, the infeed section having at least one infeed element being located on the fore-region of the frusto-conical portion of the drum;

a crop processing section for processing harvested crop material received from the infeed section of the rotor, the crop processing section having at least one crop processing element being located on the aft-region of the frusto-conical portion of the drum, the crop processing element sweeping a cylindrical path upon rotation of the rotor.

10. The rotor described in Claim 9 wherein the crop processing section is a threshing section and the crop processing element is a threshing element.

11. The rotor described in Claim 10 wherein the infeed element is a helical infeed flight.

12. The rotor described in Claim 9 having at least one crop processing element being located on the rearward cylindrical portion of the drum.

13. The rotor described in Claim 12 wherein the crop processing element of the crop processing section sweeps a cylindrical path upon rotation of the rotor.

14. The rotor described in Claim 13 wherein the crop processing section is a threshing section and the crop processing element is a threshing element.

15. The rotor described in Claim 14 wherein the infeed element is a helical infeed flight.

16. In an agricultural harvester having a crop processing unit comprising a rotor and a housing, the rotor comprising:

a drum having a rearward cylindrical portion and a forwardly extending frusto-conical portion, the surface of the frusto-conical portion comprising an aft-region adjacent to the rearward cylindrical portion of the drum, and a fore-region;

an infeed section for receiving harvested crop material, the infeed section having at least one infeed element being located on the fore-region of the frusto-conical portion of the drum;

a crop processing section for processing harvested crop material received from the infeed section of the rotor, the crop processing section having at least one

crop processing element being located on the aft-region of the frusto-conical portion of the drum, and having at least one crop processing element being located on the rearward cylindrical portion of the drum.

17. The rotor described in Claim 16 wherein the crop processing section is a threshing section and the crop processing element is a threshing element.

18. The rotor described in Claim 17 wherein the infeed element is a helical infeed flight.

19. The rotor described in Claim 16 wherein the crop processing element of the crop processing section sweeps a cylindrical path upon rotation of the rotor.

20. The rotor described in Claim 19 wherein the crop processing section is a threshing section and the crop processing element is a threshing element.